



R E M A R K S

Claims 1-9 stand finally rejected under 35 USC 103 as being unpatentable over Kikuchi et al. in view of Fujinami and de Haan et al. Based on the following, this rejection is respectfully traversed.

In response to the above rejection, claim 1 has been amended to recite "generating prediction errors in dependence on said second motion vectors only". Claims 3-4, 6 and 9 have also been amended similarly.

In column 41, lines 17-20, Kikuchi et al. discloses that the first error calculator 732 computes the magnitude of the difference (error) between the input picture signal 121 in the large region and the first prediction signal 742. Further, in column 41, lines 36-42, Kikuchi et al. also discloses that the second prediction circuit 701 generates a prediction signal 122 corresponding to the candidate 721 for a small region motion vector and then the second error calculator 702 computes magnitude of the difference(error) between the input picture signal 121 and the prediction signal.

Based on the above disclosure, it is evident that Kikuchi et al. does not disclose "generating prediction

errors in dependence on said second motion vectors only", as required by the claims. Therefore, it is respectfully submitted that this feature is distinguishable over Kikuchi et al.

The above-described deficiencies of Kikuchi et al. are also not addressed by either Fujinami or de Haan et al. Thus, it is respectfully submitted that the invention of claims 1-9 is not obvious Kikuchi et al. in view of Fujinami and de Haan et al. Therefore, it is respectfully requested that the above rejection be reconsidered and withdrawn so that the present application may proceed to issue.

The Commissioner is hereby authorized to credit any overpayment or charge any fee (except the issue fee) to Account No. 14-1270.

Respectfully submitted,

By   
Russell Gross, Reg. 40,007  
Attorney  
(914) 333-9631

CERTIFICATE OF MAILING

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On May 14, 2001  
By Edna Chapa



## APPENDIX

Claim 1. (twice amended) A method of motion-compensated predictive image encoding, comprising the steps of:

estimating (ME) first motion vectors (MVc, MVl, MVr, MVa, MVb) for first objects (16\*16);

filtering (MVPF) every occurrence of said first motion vectors (MVc, MVl, MVr, MVa, MVb) to obtain second motion vectors (MV1, MV2, MV3, MV4) for second objects (8\*8), said second objects (8\*8) being smaller than said first objects (16\*16);

generating (3) prediction errors in dependence on said second motion vectors (MV1, MV2, MV3, MV4) only; and

combining (VLC) said first motion vectors (MVc, MVl, MVr, MVa, MVb) and said prediction errors.

Claim 3. (twice amended) A device for motion-compensated predictive image encoding, comprising:

means for estimating (ME) first motion vectors (MVc, MVl, MVr, MVa, MVb) for first objects (16\*16);

means for filtering (MVPF) every occurrence of said first motion vectors (MVc, MVl, MVr, MVa, MVb) to obtain second motion vectors (MV1, MV2, MV3, MV4) for second objects (8\*8), said second objects (8\*8) being smaller than said first objects (16\*16);

means for generating (3) prediction errors in dependence on said second motion vectors (MV1, MV2, MV3, MV4) only; and

means for combining (VLC) said first motion vectors (MVc, MVl, MVr, MVa, MVb) and said prediction errors.

Claim 4. (twice amended) A method of motion-compensated predictive decoding, comprising the steps of:

generating ( $VLC^{-1}$ ) first motion vectors (MVC, MV1, MVr, MVa, MVb) and prediction errors from an input bit-stream, said first motion vectors (MVC, MV1, MVr, MVa, MVb) relating to first objects (16\*16) and said prediction errors related to second objects (8\*8) only;

filtering (MVPF) every occurrence of said first motion vectors (MVC, MV1, MVr, MVa, MVb) to obtain second motion vectors (MV1, MV2, MV3, MV4) for said second objects (8\*8), said second objects (8\*8) being smaller than said first objects (16\*16); and

generating (15, MC) an output signal in dependence on said prediction errors and said second motion vectors (MV1, MV2, MV3, MV4).

Claim 6. (twice amended) A device for motion-compensated predictive decoding, comprising:

means for generating ( $VLC^{-1}$ ) first motion vectors (MVC, MV1, MVr, MVa, MVb) and prediction errors from an input bit-stream, said first motion vectors (MVC, MV1, MVr, MVa, MVb) relating to first objects (16\*16) and said prediction errors related to second objects (8\*8) only;

means for filtering (MVPF) every occurrence of said first motion vectors (MVC, MV1, MVr, MVa, MVb) to obtain second motion vectors (MV1, MV2, MV3, MV4) for said second objects (8\*8), said second objects (8\*8) being smaller than said first objects (16\*16); and

means for generating (15, MC) an output signal in dependence on said prediction errors and said ~~first~~ second motion vectors ~~(MVC, MV1, MVr, MVa, MVb)~~ (MV1, MV2, MV3, MV4).

Claim 9. (twice amended) A method for generating a motion-compensated predictively encoded image signal, comprising:  
estimating motion vectors (MVC, MVl, MVr, MVa, MVb) relating to first objects (16\*16); and generating prediction errors relating to every occurrence of second objects (8\*8), said second objects (8\*8) being smaller than said first objects (16\*16), wherein said prediction errors depend on motion vectors for said second objects (8\*8)only.